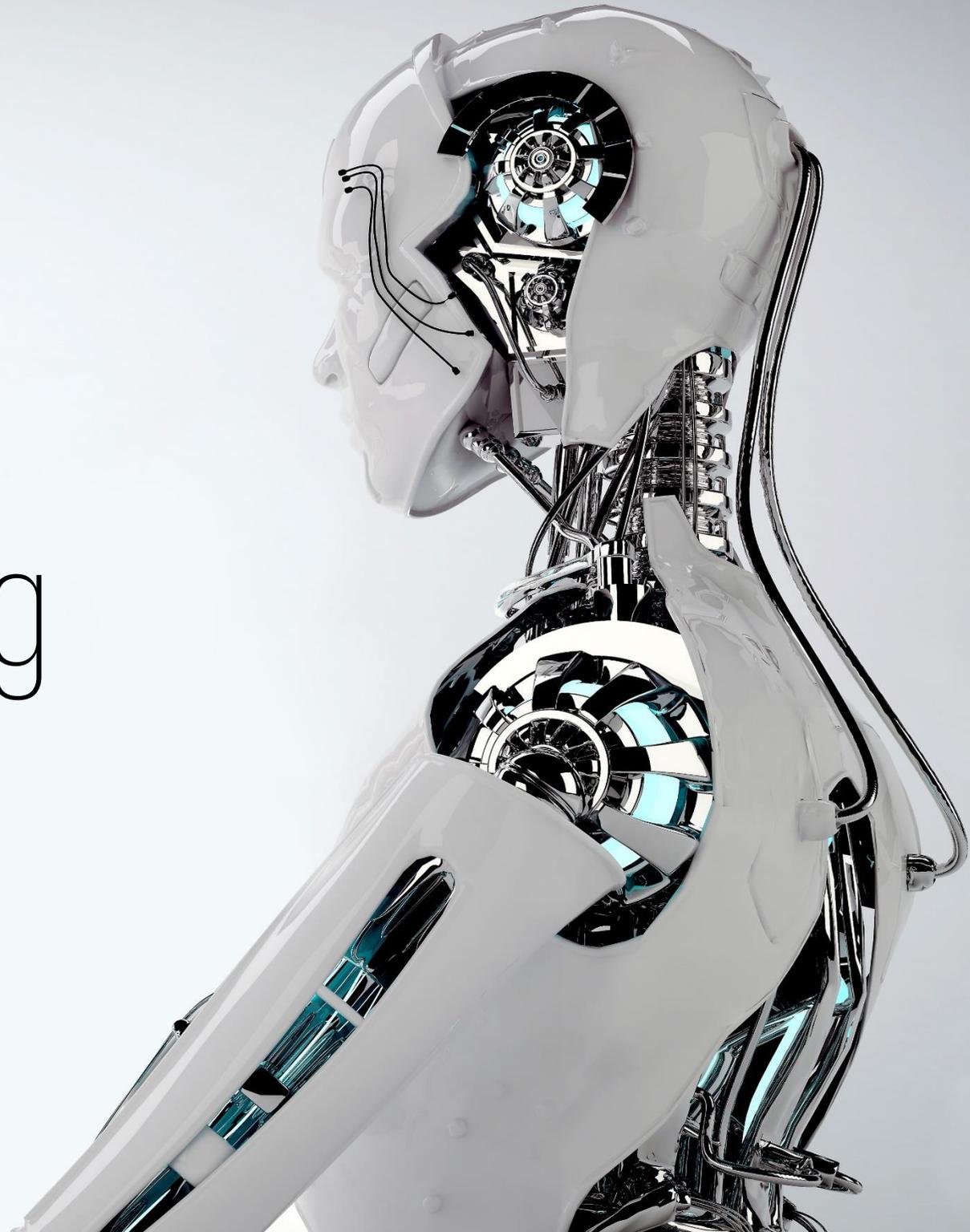




# Robot Accounting

**Zanie Theron**  
Managing Partner, KPMG Port Moresby

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[kpmg.com.pg](http://kpmg.com.pg)



# Talking points

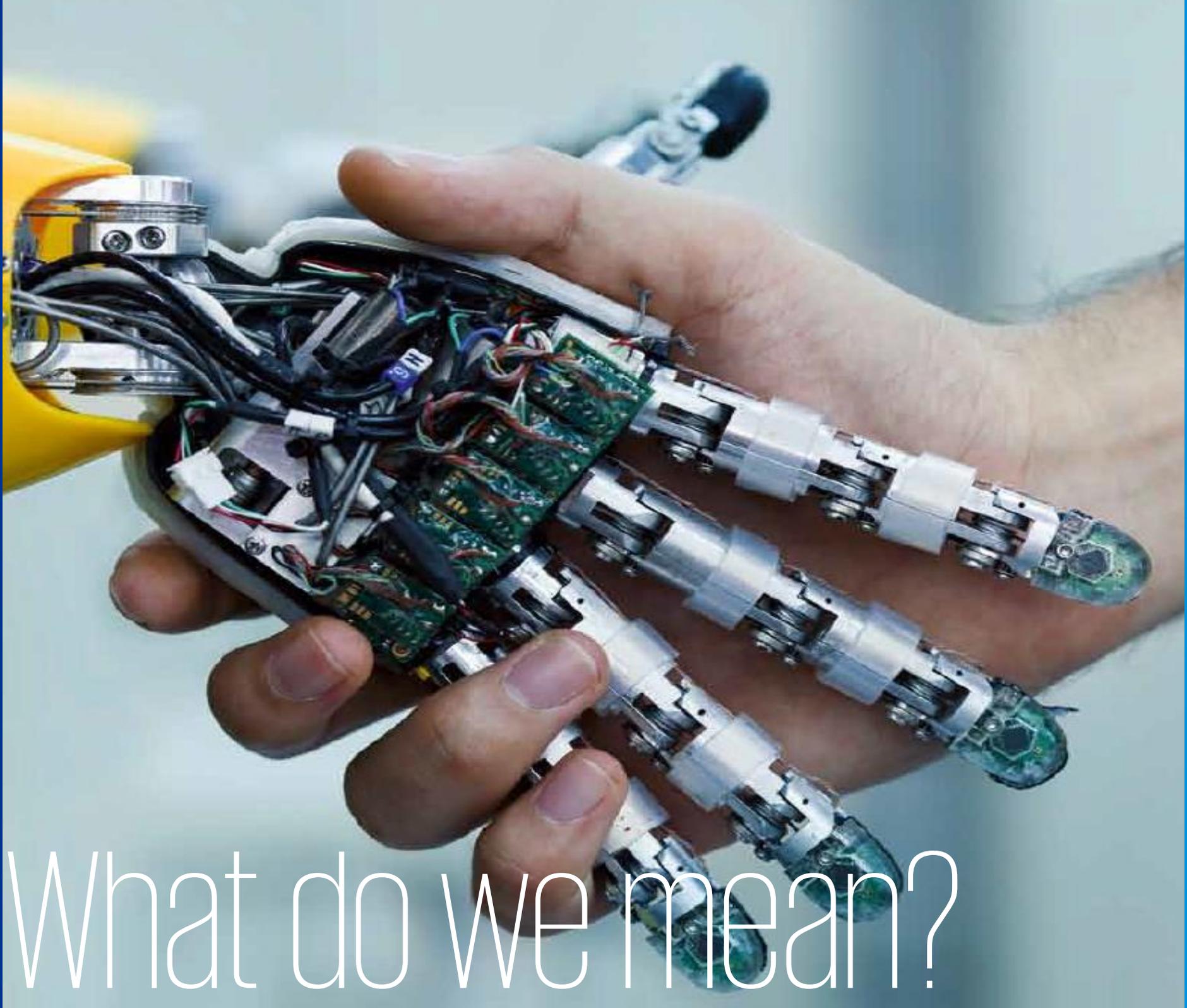
A white humanoid robot with a screen on its head, standing in an open field under a cloudy sky. The robot has a white torso and black joints. The screen on its head displays some text in yellow and red. The background is a vast, open landscape with a cloudy sky.

**What do we mean?**

**Examples and advantages**

**Predictions and implications**

**What do we need to do now?**



What do we mean?

# What do we mean?

## **Terms being used**

- RPA – Robot Process Automation
- Robot Accounting
- Robotic Software

# What do we mean?

## **Definition**

The use of a software robot or “bot” that replicates the actions of a human to execute tasks across multiple computer systems.

# What do we mean?

## **Disruption discussion**

A minute of work for a robot is equal to about 15 minutes of work for a human. Robotics is predicted to automate or eliminate up to 40 percent of transactional accounting work by 2020. The bots can have accuracy rates as high as 99 percent and can reduce operating costs by 25 to 40 percent or more. They work 24/7. They don't take vacation.

Since the arrival of cloud computing platforms, a growing share of accounting's donkey work has been automated. Software firms such as Xero, Intuit and Reckon have all made everyday accounting processes simpler and faster. Reconciliations and report generation are now being done using robotic process automation (RPA) solutions from the likes of BlackLine, Thomson Reuters and Wolters Kluwer.

In February 2017, the US arm of H&R Block announced that it was working with IBM's cognitive computing platform Watson to ensure its retail clients don't miss out on any tax deductions or credits. Watson has been trained on the 74,000 pages of the US federal tax code and prompts an H&R Block accountant about deduction or claim opportunities as they complete a client's tax return.

# What do we mean?

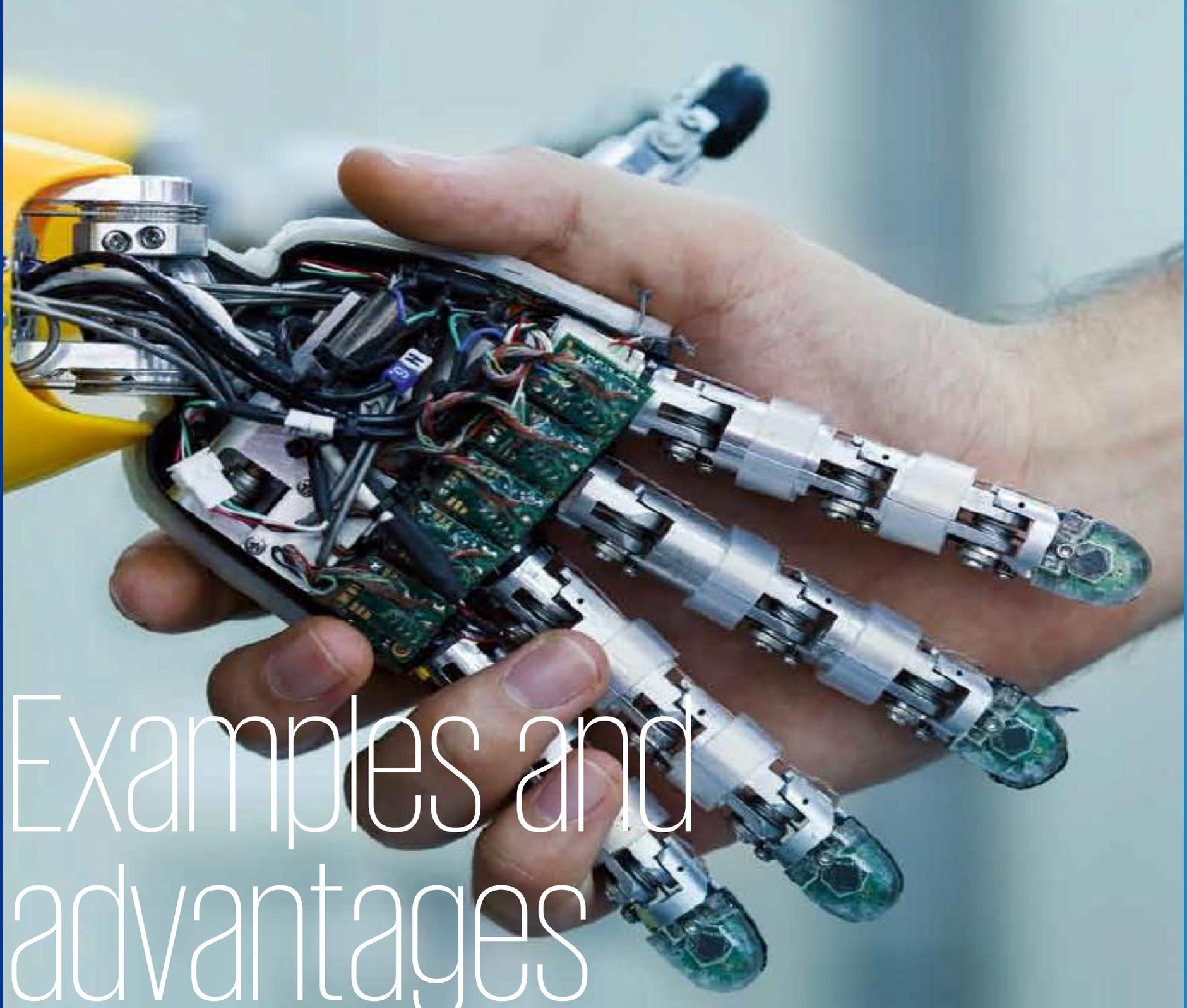
## Disruption discussion

There are three waves of technology-charged change already facing accountants.

First is **robotic process automation (RPA)**, which optimises the execution of business processes. Melded with deep machine learning, which can identify patterns and continually monitor regulatory compliance rather than just conduct end-of-year audits, this will see organisations benefit from improved process quality and regulatory compliance at a lower cost

**Blockchain (distributed ledger technology)** is the next wave of automation impacting accountants. One of the first applications for blockchain is likely to be in large enterprises, which will share financial information across international or departmental silos. Given all transactions would be stored on an internal blockchain, there would be no need for account reconciliation.

The third area identified is **smart contracts** that encode business and financial logic onto a blockchain, which is then dynamically executed.



# Examples and advantages

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## Examples of what they could do

### Three levels of accounting that are ripe for automation

**Process automation using structured data and basic rules**

**More sophisticated platforms that can deal with structured and unstructured data (for example, recognising a purchase order number on a scanned document and automatically processing it)**

**Artificially intelligent platforms “where machines learn through algorithms”.**

# Examples and advantages

## **Examples of what they could do**

**Automate previously manual business processes and functions**

# Examples and advantages

## **Examples of what they could do**

### **Reconciliation of Matching Errors**

# Examples and advantages

## **Examples of what they could do**

### **Monthly Account Closure**

# Examples and advantages

## What have accounting firms done so far?

In 2017, **Deloitte** has named a data scientist as an audit partner

**Ernst & Young** built an army of about 200 bots since Jan 2016 in the firm's tax practice operations that has resulted in saving several hundred thousand hours of process time annually

**KPMG** has used various degrees of intelligent automation for more than three years. More specifically, in July 2018, last month, Commonwealth Bank of Australia, Microsoft and KPMG have joined forces to create a new start-up called Wiise, which will challenge Xero and MYOB by expanding their software offering for small to medium-sized businesses and integrating banking features.

Wiise is owned by KPMG, and operate under a strategic partnership with CBA and Microsoft. The software provides not only accounting and financial management, but job costing, workflow scheduling and inventory management, payroll, sales and marketing, and customer relationship management.

The platform will provide SMEs with access to big-end-of-town technology, including Microsoft's artificial intelligence and voice recognition services, and high-grade cyber security protection given with data to be stored in Microsoft data centres.

# Examples and advantages (cont'd)

## Advantages

### Time - definitely!

Intelligent automation can provide greater accuracy, accountability and defensibility by logging every process step executed and data source used.

### Opportunities for value – adding

By reducing routine, administrative chores.

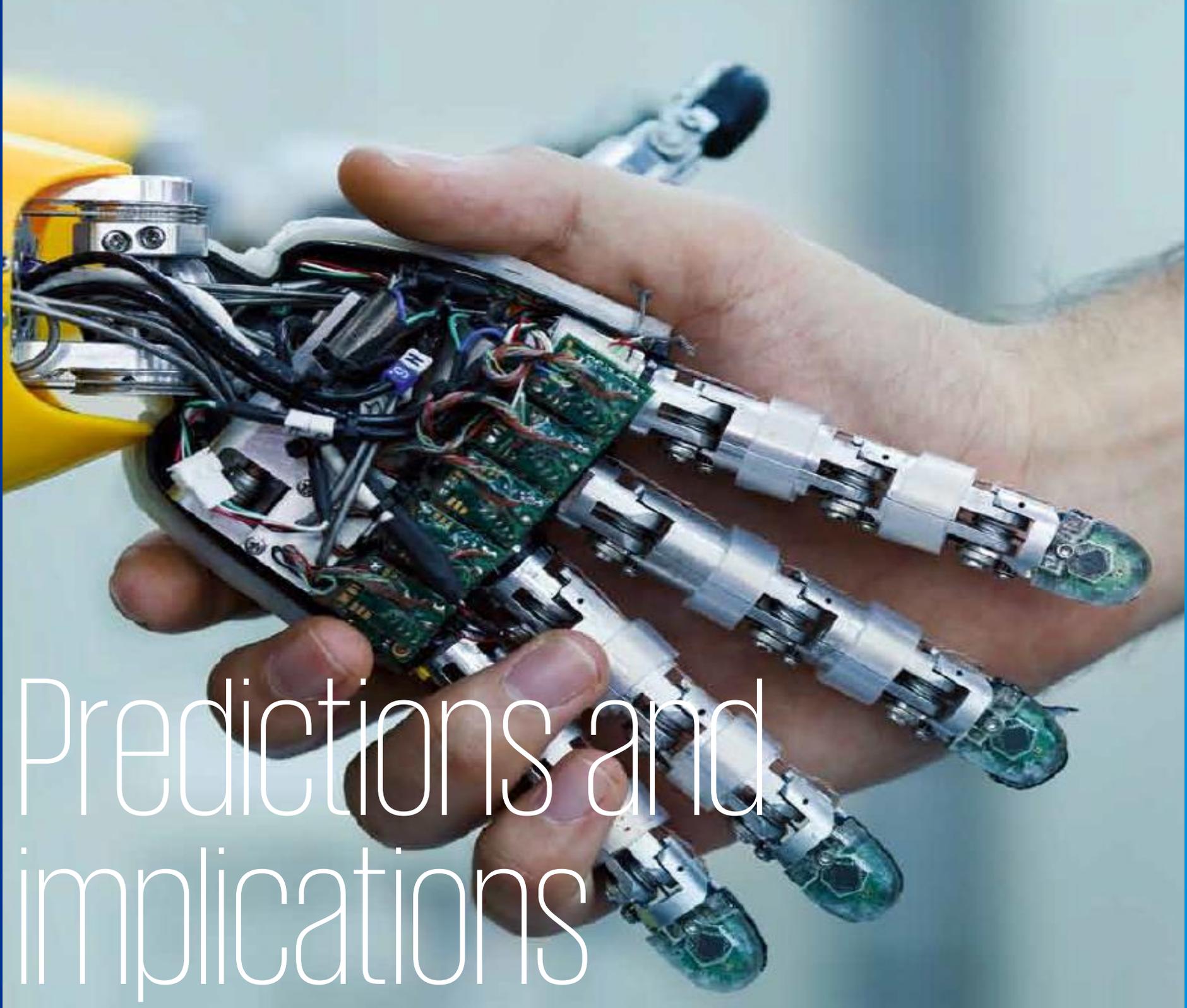
### Accuracy

### Audits

### Service expansion

Become a more sophisticated advisor and planner. Good accountants are—and have always been—proactive, rather than reactive. This will not change anytime soon





# Predictions and implications

# Predictions and implications

## **Create more jobs, not less**

In some ways, robotics will create more jobs because it requires tech-savvy workers. More firms will need staffers who understand how automation works.

## **Definitely an impact though**

When Oxford University explored the impact of artificial intelligence and robotics in 2015, the BBC used the data to build an online calculator. Users can plug in their job title and find out how likely it is they will be impacted over the next couple of decades.

That calculator reveals that accountants will be among the first professionals impacted; 95 per cent will likely face some threat from advanced technology.

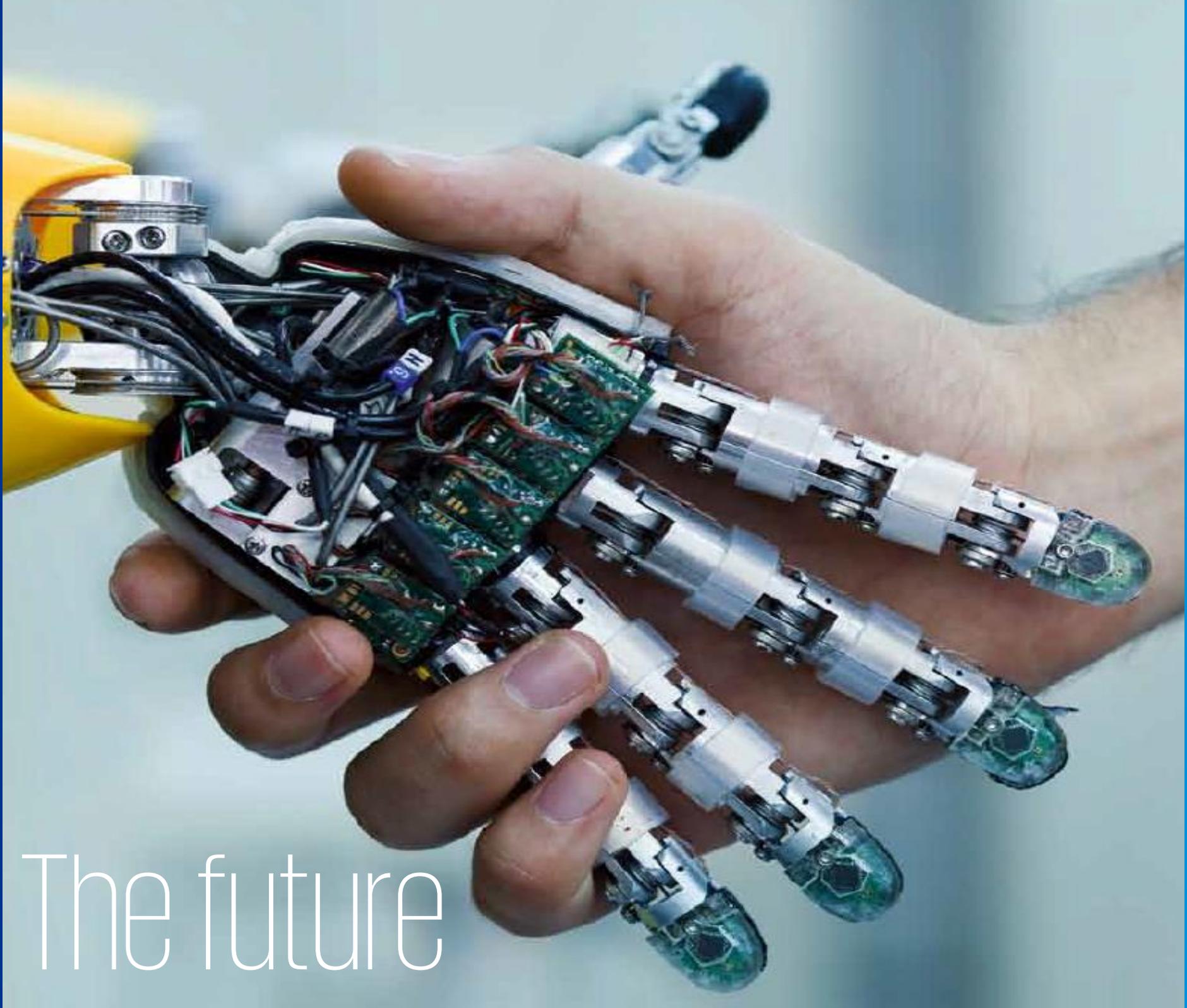
## **Robot tax?**

## **Rules-based activities not performed by humans?**

Sonia Eland is a vice-president of IT firm DXC Technology and notes that “software bots mimic human activity – they are not intelligent on their own,” but “where things are rules based, then RPA is having a massive impact”.

Transactional processing will move from somewhat automated to fully automated, and that moves people up the capability curve.

It pushes people into new roles and fields where they can anticipate change for the business.



The future

# What do we need to do now?

## Reinvention

### **The most successful approach is to treat robots and humans as partners.**

There is a lot of high-volume repetitive work you can use a bot for. Bots are brilliant when it comes to following rules and they don't make errors. Nor do they make judgements. But the bot is not taking over all the work. A bot can hand work to a human and a human can hand work back to a bot, allowing humans to focus on issues requiring judgement such as approvals or analysis.

### **Understand what is happening**

In time to come, accountants may be involved in the design of the systems and machines that take over some accounting tasks. Auditors will need to be trained to audit the reliability, rigour and accuracy of these systems and machines.

### **Become tech-savvy**

Success will come from learning how to leverage the "horsepower and analytical capabilities" of emerging technologies. That may see accountants learning to code in order to deploy technologies to the greatest effect.

# What do we need to do now?

## Reinvention

### It's not about the rules anymore, so what differentiates humans?

Value-adding is critical. It is possible that with more advanced RPA there will be less need for people to do straightforward things.

Automating the routine, however, means professionals are freed up to add value.

### Advisory and judgment-based roles

Acknowledging that RPA could be “bleak for the profession,” it opens opportunities for individuals prepared to partner with a business to use the data spat out by the robots to influence a business, and to become its trusted adviser.

### Staying ahead of the curve

Accountants and finance professionals need to act now and transform the way they operate. The longer we take, the more we will be left behind. Progressive finance leaders are prepared to experiment, so that the culture of a new way of working becomes the new normal.

The new normal includes a modern accountant or auditor. How the audit function is changing – to be agile around data and complement the business value.

# What do we need to do now?

## Reinvention

### Understanding data is essential

This is a commercial vantage point. Instead of accountants becoming extinct, roles will emerge, which are not even invented yet. In the course of history, whenever machine and tools substituted one type of human capability, new human experiences and capabilities actually emerged. This happened when humans made the transition from hunter-gatherers to farmers, and then from farming to more industrial modes of work.

Likewise, the boundaries of the accountancy profession are shifting, and the skills which it calls for are evolving. The advance of technology has freed accountants from the drudgery of menial and mundane tasks such as the manual data entry of invoices, to pursue higher-value work that may bring in higher incomes. That includes accountants harnessing technology like data analytics tools to provide more in-depth and timely financial expertise to help their business outfits navigate today's volatile business landscape.

# What do we need to do now?



# What do we need to do now?

## Reinvention

### 4 soft skills in demand in accounting

With robotic technology performing the grunt work, the skills likely to make accountants stand out, are their **emotional quotient, problem-solving capabilities, creative thinking and cognitive flexibility** – all of which are currently foreign to robots.

According to a study of over 2,000 work activities in more than 800 occupations by the McKinsey Global Institute released this year, the easiest jobs to automate are those involving predictable physical activities such as assembly line work in manufacturing. The next easiest jobs to automate include data collection and processing activities.

At the other end of the spectrum, the hardest activities to automate are those that involve managing and developing people or require deep expertise in decision-making and planning.

# What do we need to do now?

## Reinvention

### 4 soft skills in demand in accounting

Finally, professionals prepared to use bots to automate and speed up mundane tasks, even learn how to code, are going to free their time for more value-adding work. The robots may be coming, but for accountants this shift may ultimately present more of an opportunity than a threat.

A survey released in May 2017 predicts that by 2030 “soft-skill intensive” occupations will account for 63 per cent of all jobs in Australia – and that job market success will require candidates to demonstrate their prowess in areas such as communication, teamwork, problem-solving, emotional judgement and professional ethics.

# What do we need to do now?

## Reinvention

### How should the CFO respond?

Today's rapidly changing business environment requires finance to address disruption head-on or risk being left behind more nimble competitors.

Leading chief financial officers (CFOs) are focusing on leveraging disruption into opportunities for competitive advantage and growth while also improving their delivery of products and services to their stakeholders. Experience shows that CFOs are deriving specific benefits for their companies by focusing on these key areas:

#### **Innovation and investment**

#### **Extreme automation**

#### **Insights and analysis**

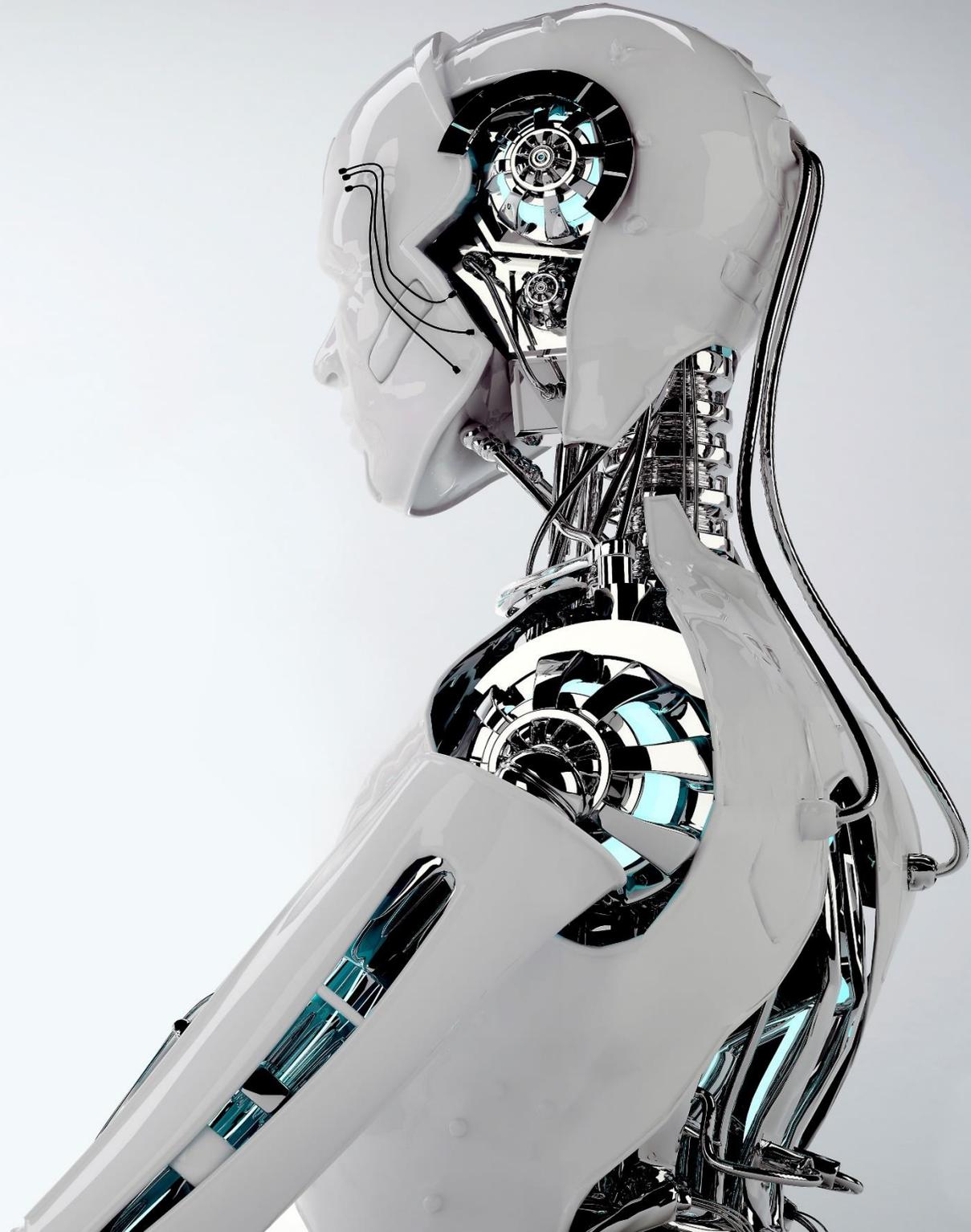
#### **Organization and talent**

#### **Risks and controls**





Questions?





## Contact us

+ 675 72100 147  
ztheron@kpmg.com.au

[kpmg.com.pg](http://kpmg.com.pg)

